

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of diagnostic investigation of a sample comprising a fluid from a biological organism, the method comprising the steps of:
accommodating the sample in a measuring device,
determining measuring quantitatively at least one macroscopic physical quantity
property of a sample, wherein said at least one macroscopic physical quantity-property is
measured by characterizes an interaction of said sample with sound waves, and
correlating said at least one measured macroscopic physical quantity-property with
reference data which characterize at least one condition of said sample, and
determining at least one diagnostic characteristic of said sample based on a
correlation between said at least one macroscopic physical property and said reference data.
~~data, which characterize at least one condition of said sample of said organism, for obtaining~~
~~at least one diagnostic characteristic.~~

2. (Currently Amended) The method of claim 1, wherein said determining step comprises measuring of at least one macroscopic physical property~~quantity~~ from the group consisting of resonance frequency of sound waves, sound wave-length, sound ~~velocity~~velocity, viscosity, compressibility, mass density, shear wave parameter, acoustic impedance and refractive index of sound waves.

3. (Currently Amended) The method of claim 1, wherein said determining step comprises measuring said at least one macroscopic physical value-property with a relative precision better than 10^{-3} .

4. (Currently Amended) The method of claim 1, wherein said determining step comprises measuring at least two macroscopic physical properties quantities, said at least two macroscopic physical properties quantities-being measured at different temperatures and/or ~~and~~-pressures of said sample.

5. (Currently Amended) The method of claim 1, wherein said determining step comprises measuring at least one relative macroscopic physical property quantity of said ~~at least one physical valuesample~~, said at least one relative macroscopic physical property quantity being measured as a difference or quotient of a first measured macroscopic physical property quantity obtained with said sample and a second measured macroscopic physical property quantity obtained with a reference sample.

6. (Currently Amended) The method of claim 5, wherein said determining step comprises measuring at least two relative macroscopic physical properties quantities, said at least two relative macroscopic physical properties quantities being measured at different temperatures and pressures of said sample and said reference sample, respectively.

7. (Currently Amended) The method of claim 1, wherein said determining step comprises a step of comparing said at least one macroscopic physical property quantities, a corresponding

relative macroscopic physical property quantity, or a curve shape of said macroscopic physical properties quantities or relative macroscopic physical properties quantities with at least one threshold reference macroscopic physical property quantity or reference curve shape for obtaining said at least one diagnostic characteristic.

8. (Currently Amended) The method of claim 1, wherein said step of obtaining determining said at least one diagnostic characteristic of a sample comprises a detection of at least one biomolecule in said sample.

9. (Currently Amended) The method of claim 8, wherein said detection comprises a step of determining a presence of at least one protein, lipid, lipide or polysaccharide in said sample.

10. (Currently Amended) The method of claim 1, wherein said step of obtaining determining said at least one diagnostic characteristic comprises detecting of a disease of said biological organism.

11. (Currently Amended) The method of claim 10, wherein said detecting step comprises a step of detecting at least one disease comprising a neurodegenerative disease producing characteristic biomolecules in said sample from a biological organism a body liquid of said organism.

12. (Currently Amended) The method of claim 1, further comprising a step of preparing said sample before said determining step, said preparing step comprising at least one of an

addition of an additive to said sample, a purification of said sample, sample or a separation of at least one component from said sample.

13. (Currently Amended) A method of diagnostic investigation of a CSF liquor sample from a human being or an animal, the method comprising the steps of:

measuring at least one sound velocity value through said in said prepared sample at, at least one temperature or pressure, and

evaluating said at least one value of sound velocity, a corresponding relative value, or a curve shape of values or relative values and detecting at least one predetermined disease producing biomolecule in the sample.

14. (Currently Amended) The method of claim 13, further comprising the step of preparing said sample, said preparing comprising separation of albumin and immunglobulins, immunglobulines, before said measuring step.

15. (Withdrawn, Currently Amended) A diagnostic device for investigating a sample of a biological organism, said device comprising:

a measuring device for determining measuring at least one macroscopic physical property quantity of said sample, wherein said at least one macroscopic physical property quantity characterizes an interaction of said sample with sound waves, and

an evaluating device for evaluating said at least one macroscopic physical value property and for correlating said at least one physical property quantity with reference data,

which characterize at least one condition of said sample or of said organism, for obtaining at least one diagnostic information.

16. (Withdrawn) The diagnostic device of claim 15, wherein said measuring device comprises a sound resonator cell and a sound frequency detention circuit.

17. (Withdrawn) The diagnostic device of claim 15, wherein said measuring device comprises a temperature or pressure control device.

18. (Withdrawn) The diagnostic device of claim 15, wherein said evaluating device comprises a calculating circuit containing a comparison or a correlation circuit.